

AMENDMENTS TO THE CLAIMS:

The listing of claims will replace all prior versions, and listings of claims in the application:

LISTING OF THE CLAIMS

1. (Original) A method of cleaning a contaminated material which comprises a solid material which is contaminated with a hydrocarbon, the method comprising the steps of:

(A) contacting the contaminated material with a surface active agent thereby to form a first mixture including said contaminated material and said surface active agent;

(B) contacting said first mixture with a carrier formulation to prepare a second mixture wherein said carrier formulation is arranged to interact with said surface active agent and/or said hydrocarbon;

(C) separating said solid material in said second mixture from other components in the second mixture, wherein said solid material which is separated contains a lower level of said hydrocarbon compared to that in said contaminated material contacted in step (A).

2. (Original) A method according to claim 1, wherein said contaminated material contacted in the method comprises drill cuttings produced when drilling for oil or gas.

3. (Currently Amended) A method according to claim 1 ~~or claim 2~~, wherein said contaminated material is contaminated with a drilling fluid and/or with petroleum.

4. (Currently Amended) A method according to ~~any preceding claim~~ claim 1, wherein said contaminated material comprises at least 5wt% of fluidic hydrocarbon(s).

5. (Currently Amended) A method according to ~~any preceding claim~~ claim 1,

wherein said contaminated material comprises at least 5wt% of oil.

6. (Currently Amended) A method according to ~~any preceding claim~~ claim 1, wherein, in the method, a mass of said contaminated material is selected and contacted with said surfactant and the ratio of the wt% of said mass to the wt% of said surfactant is at least 10 and is less than 200.

7. (Currently Amended) A method according to ~~any preceding claim~~ claim 1, wherein said surface active agent includes a hydrophobic moiety which has an aromatic ring system.

8. (Currently Amended) A method according to ~~any preceding claim~~ claim 1, wherein said surface active agent includes an hydrophilic moiety.

9. (Currently Amended) A method according to ~~any preceding claim~~ claim 1, wherein said surface active agent is an anionic surfactant.

10. (Currently Amended) A method according to ~~any preceding claim~~ claim 1, wherein said surface active agent is wholly soluble in oil of the type contaminating the solid material at 25⁰C.

11. (Currently Amended) A method according to ~~any preceding claim~~ claim 1, wherein said contaminated material contacted in step (A) comprises 10 to 20wt% of hydrocarbon contaminant and 80 to 90wt% of drill cuttings.

12. (Currently Amended) A method according to ~~any preceding claim~~ claim 1, wherein said first mixture contacted in step (B) comprises 100 parts by weight (pbw) of solid material, 10 to 20pbw of hydrocarbon(s); up to 5pbw of surface active agents; and up to 10pbw water.

13. (Currently Amended) A method according to ~~any preceding claim~~ claim 1,

wherein said carrier formulation contacted with said first mixture in step (B) includes a carrier which is arranged to interact with a hydrophilic moiety of said surface active material.

14. (Currently Amended) A method according to ~~any preceding claim~~ claim 1, wherein said carrier includes a polar moiety.

15. (Currently Amended) A method according to ~~any preceding claim~~ claim 1, wherein said carrier is a first polymeric material which includes a multiplicity of cationic moieties.

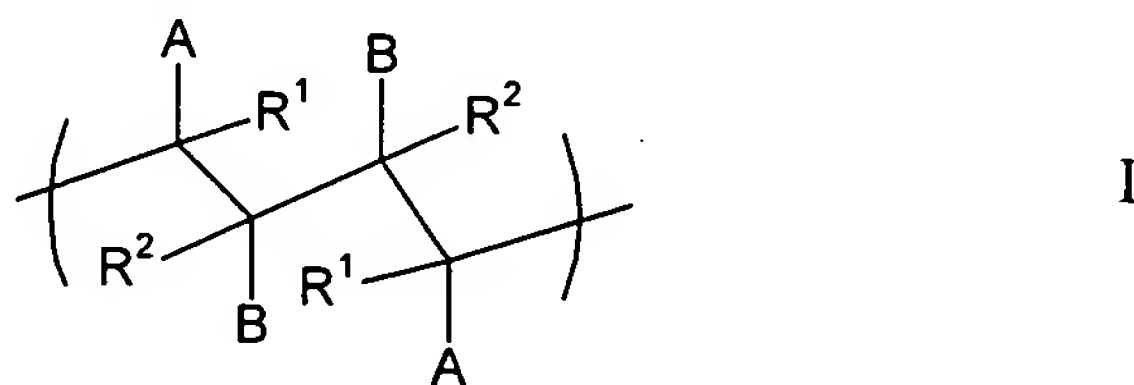
16. (Original) A method according to claim 15, wherein said first polymeric material includes hydroxyl groups pendent from a polymeric chain.

17. (Currently Amended) A method according to claim 1 ~~15 or claim 16~~ wherein said carrier comprises a first polymeric material which incorporates a polyvinyl alcohol moiety.

18. (Currently Amended) A method according to ~~any preceding claim~~ claim 1, wherein said carrier formulation is aqueous and includes at least 85wt% of water.

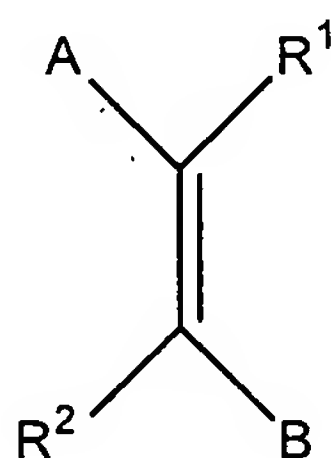
19. (Currently Amended) A method according to ~~any preceding claim~~ claim 1, wherein said carrier formulation comprises a said first polymeric material which comprises a second polymeric material cross-linked by a third polymeric material, wherein said third polymeric material comprises:

(i) a third polymeric material having a repeat unit of formula



wherein A and B are the same or different, are selected from optionally-substituted aromatic and heteroaromatic groups and at least one comprises a relatively polar atom or group and R¹ and R² independently comprise relatively non-polar atoms or groups; or

(ii) a third polymeric material prepared or preparable by providing a compound of general formula



wherein A, B, R¹ and R² are as described above, in an aqueous solvent and causing the groups C=C in said compound to react with one another to form said third polymeric material.

20. (Original) A method according to claim 19, wherein said third and second polymeric materials are reacted to form said first polymeric material prior to contact with said contaminated material.

21. (Currently Amended) A method according to claim 19 ~~or claim 20~~, wherein, prior to step (B), said method comprises selecting a said third polymer material; selecting a second polymeric material which includes a functional group which is able to react in the presence of said third polymeric material to form said first polymeric material; and causing the formation of said first polymeric material by a reaction involving said third and second polymeric materials.

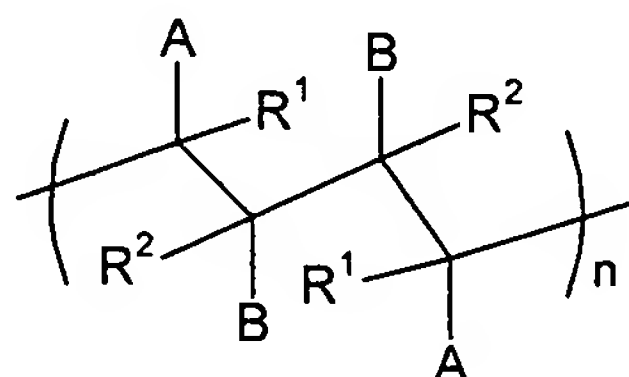
22. (Original) A method according to claim 21, wherein the ratio of the wt% of said third polymeric material to the wt% of said second polymeric material selected for preparation of said first polymeric material is less than 0.1 and is at least 0.01.

23. (Currently Amended) A method according to ~~any of claims 19 to 22~~ claim

19, wherein one of A or B represents an optionally-substituted aromatic group and the other one represents an optionally-substituted heteroaromatic group.

24. (Currently Amended) A method according to ~~any of claims 19 to 23~~ claim 19, wherein R_1 and R_2 are independently selected from a hydrogen atom or an optionally-substituted alkyl group.

25. (Currently Amended) A method according to ~~any of claims 19 to 23~~ claim 19, wherein said third polymeric material is of formula:



wherein n is an integer.

26. (Currently Amended) A method according to ~~any of claims 19 to 25~~ claim 19, wherein said second polymeric compound is selected from optionally-substituted polyvinyl alcohol, polyvinyl acetate and polyalkylene glycols.

27. (Currently Amended) A method according to ~~any of claims 19 to 26~~ claim 19, wherein said second polymeric material includes at least one vinyl alcohol/vinyl acetate copolymer.

28. (Currently Amended) A method according to ~~any preceding claim~~ claim 17, wherein in step (B) said second mixture is mixed to effect intimate contact between the components therein.

29. (Currently Amended) A method according to ~~any preceding claim~~ claim 28, wherein step (C) includes allowing solid material to settle.

30. (Currently Amended) A method according to ~~any preceding claim~~ claim

29, wherein after step (B) and before step (C), said second mixture is contacted with further water.

31. (Currently Amended) A method according to ~~any preceding claim~~ claim 29, wherein after step (C) the method comprises, in a step (D), separating components which remain in said second mixture from one another.

32. (Original) A method according to claim 31, wherein in step (D), said carrier is caused to form a precipitate.

33. (Original) A method of cleaning a contaminated material comprising a solid material which is contaminated with a hydrocarbon, the method including the steps of:

(A*) contacting the contaminated material with a first polymeric material and/or with second and third polymeric materials of the types described in any preceding claim to prepare a mixture; and

(B*) separating solid material which is less contaminated than the contaminated material contacted in step (A) from other components in the mixture.

34. (Currently Amended) ~~The use~~ decontamination of drill cuttings by applying an effective amount of a first polymeric material and/or second and/or third polymeric materials according to the method as described in ~~any preceding claim 1, in the decontamination of drill cuttings.~~

35. (Currently Amended) Drill cuttings containing a trace of ~~a first, second or third polymeric material as described in any preceding claim~~ polyvinylalcohol.